

WHAT IS CLAIMED IS:

1. A method for executing a predetermined process in a SMM while operating under ACPI control, comprising:
 - generating a SMI request under ACPI control;
 - changing an operation mode of a processor to the SMM in response to the SMI request; and
 - executing a resume ACPI control process to return the processor to ACPI control after the process is complete.
2. The method according to claim 1, wherein changing the operation mode of a processor to the SMM further comprises:
 - saving processor state map information in a first area of a memory upon reception of the SMI request.
3. The method of claim 1, wherein generating a SMI request under ACPI control further comprises:
 - setting SMI enable in a SMI generation register.
4. The method of claim 1, wherein generating a SMI request under ACPI control further comprises:
 - detecting a predefined SMM-compatible task under ACPI control; and
 - configuring the processor to access a SMI driver upon detecting the predefined SMM-compatible task.
5. The method of claim 4, wherein configuring the processor to access the SMI driver upon detecting the predefined SMI-compatible task comprising:
 - using a SMI generation register for generating a SMI request during operation of an operating system under ACPI control in response to detection of a predefined SMM-compatible task.

6. The method of claim 4, wherein the SMI generation register is configured to generate an SMI signal in response to recognition of an SMM-compatible task.
7. A method for executing tasks in SMM under ACPI control, comprising:
generating a SMI request during operation of an operating system under ACPI control;
changing a mode of a processor to SMM in response to the SMI request;
executing tasks by the processor in the SMM mode;
delegating tasks to various processors to achieve faster execution in SMM mode; and
returning the processor to ACPI control.
8. The method of claim 7, wherein generating a SMI request under ACPI control further comprises:
setting SMI enable in a SMI generation register.
9. The method of claim 7, wherein changing a mode of a processor to SMM in response to the SMI request further comprises:
saving processor state map information in an area of memory upon reception of the SMI request, and changing the mode of the processor to the SMM.
10. The method of claim 7, wherein generating a SMI request under ACPI control further comprises:
detecting a predefined SMM-compatible task under ACPI control; and
configuring the processor to access a SMI driver upon detecting the predefined SMM-compatible task.
11. The method of claim 10, wherein configuring the processor to access the SMI driver upon detecting the predefined SMI-compatible task comprising:

using a SMI generation register for generating a SMI request during operation of an operating system under ACPI control in response to detection of a predefined SMM-compatible task.

12. The method of claim 10, wherein the SMI generation register is configured to generate an SMI signal in response to recognition of an SMM-compatible task.

13. A machine readable medium having stored therein a plurality of machine readable instructions executable by a processor to execute tasks in SMM while under ACPI control, comprising:

instructions to generate a SMI request during operation of an operating system under ACPI control;

instructions to change a mode of a processor to SMM in response to the SMI request;

instructions to execute tasks by the processor in the SMM mode; and

instructions to return the processor to ACPI control.

14. The machine readable medium of claim 13, wherein instructions to generate a SMI request during operation of an operating system under ACPI control further comprises:

instructions to set SMI enable in a SMI generation register.

15. The machine readable medium of claim 13, wherein instruction to change a mode of a processor to SMM in response to the SMI request further comprises:

instructions to save processor state map information in an area of memory upon reception of the SMI request, and changing the mode of said processor to the SMM.

16. The machine readable medium of claim 13, wherein instructions to generate a SMI request during operation of an operating system under ACPI control further comprises:

instructions to detect a predefined SMM-compatible task under ACPI control;
and

instructions to configure the processor to access the SMI driver upon detecting the predefined SMM-compatible task.

17. The machine readable medium of claim 16, wherein instructions to configure the processor to access the SMI driver upon detecting the predefined SMI-compatible task further comprises:

instructions to generate a SMI request during operation of an operating system under ACPI control in response to detection of a predefined SMM-compatible task.

18. The machine readable medium of claim 16, further comprising:

instructions to configure the SMI register to generate a SMI signal in response to recognition of a SMM-compatible task.